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## Psychiatric aspects of the plastic surgery patient

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PSYCHIATRIC ASPECTS OF THE PLASTIC SURGERY PATIENT

By

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A THESIS

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Under the Supervision of Irvin L. Blose, M. D.

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## CHAPTER I

### INTRODUCTION

The purpose of this thesis is to present the various aspects of surgical-psychiatric collaboration as they relate specifically to cosmetic and reconstructive surgery, and to study the psychological problems which confront the surgeon when he accepts patients for these types of procedures.

If positive results are to be obtained from cosmetic or reconstructive alteration, numerous facets of the patient's personality structure must be scrutinized and interpreted. Who are the people who seek such procedures? What are their motivations? Are they undergoing psychotic or non-psychotic reactions to their disfigurement? What are the personality characteristics which make them responsive or unresponsive to surgical correction? What will be their probable reaction to the surgical experience? Are they high risk or low risk patients as far as their personality stability and the anticipated surgical result? If improvement occurs, is it subjective or objective? Will the improvement likely be temporary or sustained?

By obtaining pre-operative expert psychiatric advice the surgeon can better ascertain the answers to these questions and thus choose and refuse his candidates accordingly. In this manner the greatest possible number of patients can be helped, whether this help be surgical or psychiatric, while unnecessary surgical procedures, generally associated with poor subjective results, can be minimized.

It will be beneficial to pause here to define several of the terms used in this paper and to explain why this particular format was chosen.

Plastic surgery refers to that branch of operative surgery which has to do with the repair of defects. The major sub-divisions which will be dealt with here are cosmetic surgery and reconstructive surgery. The term plastic surgery, as it appears in the remainder of the text, will imply only these two sub-divisions.

Cosmetic surgery refers to aesthetic modifications, whereas, reconstructive surgery refers to the rebuilding and reconstruction of damaged or destroyed areas and to the repair of congenital malformations.<sup>39</sup>

While no attempt will be made to expand upon the technical aspects of the surgical procedures per se, they will be defined separately as they are discussed.

The three cosmetic procedures selected are those most frequently complicated by psychiatric problems. They are rhinoplasty (nasal corrective operations), rhytidectomy ("face-lift" operation), and mammoplasty (plastic breast procedures).

The discussion of reconstructive surgery will be divided into congenital and early acquired defects, and defects acquired later in life. The reason for this division is that psychological difficulties vary with parental handling, acuteness of onset and duration of the deformity.

All writers agree that the vast majority of people seeking plastic alterations are women and that the men who seek help commonly have significant emotional illness.<sup>30,40,42,50</sup> For this reason, men who request cosmetic procedures will be discussed in a separate chapter.

Inmates of penal institutions who are offered cosmetic and repairative procedures will also be discussed in a separate chapter since prison inmates show greater psychopathology than a normal population.<sup>47</sup>

Before entering into a discussion of the various surgical procedures and their specific psychological problems, it will be germane to delve into the historical background of surgical-psychiatric collaboration and to discuss body image, with reference to normal development, reaction to injury, and reaction to removal of the defect, since the primary goal of any plastic procedure is its improvement.

## CHAPTER II

### BODY IMAGE

Each of us carries a mental image of his own appearance.<sup>50</sup> Engel<sup>17</sup> includes this image in that awareness of self as an individual differentiated from other individuals. Body image is built on two sets of factors: the actual sensory experiences concerning the body, and the psychologic factors which are an outgrowth of personal, emotional experiences.<sup>50</sup> With reference to the first factor, Fisher<sup>33</sup> suggests that the close correlation of specific body image attitudes to specific classes of social experience is the child's earliest method of adjusting to his environment. For example, the extension of a child's hand in his mother's direction would be a body image attitude; her holding it would be a social experience. To explain this further, Jacobson, et. al.<sup>40</sup> state that whenever the child is called upon to learn new roles, or master unusual excitation, he feels it necessary to translate them into body terms.

One means of such "translation" is in modeling behavior, usually called identification. This is the most conspicuous adaptive device toward the end of the first year and throughout the second year of life.<sup>76</sup> Harmonious identifications drop out of awareness and provide a base for integrated patterns of behavior in which affect is used effectively, flexibly, and adaptively. Conflicted identifications bind affect and there is set a pattern of character responses which interferes with the refinement and mastery of old problems at new levels of development.<sup>40</sup> An application of this is the case where the symbolic representation of the problems evolves in a sense of facial deformity which provides a



symptomatic solution as an alternative to more direct dealings with conflicted feelings. This will be discussed further in dealing with the conflicted feelings of the rhinoplasty patient.

Noyes and Kolb<sup>68</sup> state that not only does a child develop his own bodily perceptions but he also takes unto himself the attitudes of others toward his body and its parts. When a child has a deformity, he very early learns its location if those around him are curious about the defect. If his parents develop a selfconscious attitude toward the defect, he will also perceive this and adopt a similiar defensive behavior.<sup>6,16,45,79</sup>

As the child grows into adolescence much of his psychic energy is again spent in establishing his own identity.<sup>38</sup> At the conclusion of childhood, identity, in outbalancing the potentially malignant dominance of the infantile superego, permits the individual to forgo excessive self-repudiation and the diffused repudiation of others. Such freedom provides a necessary condition for the ego's power to integrate matured sexuality, ripened capacities, and adult commitments.<sup>32</sup> It will become increasingly evident that many of the plastic surgery patients discussed here never attain this level. Seltzer<sup>74</sup> explains this quite simply by stating that a person with sufficient negative feelings about self will find relief in correcting something outstanding in his personal appearance, since he is seldom able to change, by act of will, the basic qualities that are responsible for his attitudes. Those persons who have more positive feelings toward self are able to ignore their physical peculiarities and live comfortably with them; even find satisfaction in them.

It has been repeatedly pointed out that there are two major areas of medical concern when dealing with the plastic surgery patient. One is objective, the anatomic deformity. The other is subjective, the sense of deformity.<sup>6,41,42,81</sup> Both are important when dealing with the reconstructive surgical patient. The latter is of greater importance when dealing with the cosmetic surgical patient.

Cosmetic patients will be dealt with further in another chapter. Under scrutiny here are those persons with gross deviations from the norm, and possible severe body image distortion.

Hollander<sup>39</sup> states that beauty may only be skin deep but ugliness goes deeper to involve the mental and emotional as well as the physical realm. There is an old saying: "A man's face is his fortune." Clarkson<sup>20</sup> and Taylor<sup>79</sup> indicate the close relationship which links facial appearance, bodily proportion, and the overall function and structure of human beings to their morale and personal identification, including their sexual fantasies, hopes and fears. It is consciousness of these factors which ultimately leads men and women to seek bodily reconstruction of any kind.

What is it that happens when the person is different? MacGregor's<sup>52</sup> study reveals that one of the basic difficulties associated with a deformity evolves from social perception, that is, what a person appears to be to others, and the impression he gives because of his looks. From what is socially perceivable, we form impressions, generally impulsively rather than critically, and tend to react adversely toward those whose faces are ugly or marred by an unsightly feature. Such individuals not only must often make personality adjustments to their distorted

reflections, but they are sometimes impelled to behave in a manner expected of them though it be contrary to their basic needs and desires. This in turn may produce severe psychological conflicts and make adequate adjustment difficult, if not impossible.<sup>52,54</sup> Shakespeare expressed this quite aptly in Henry VI:

Then since the heavens have shaped my body so  
Let hell make crook'd my mind to answer it.

This was one of the hypotheses which gave birth to thirty years of reconstructive surgery in our state and federal penal institutions.<sup>47,49,70,75</sup>

Behind the deformity often lies mental anguish, anxieties, restricted joy of living, and even seclusion and isolation from mankind.<sup>39</sup> However, unless personally affected by such a disability, it is difficult to understand its emotional impact and the frustration caused.<sup>55</sup> It has been said that a large and noticeable defect offers no inconvenience or psychological reaction, no hinderance to our success or well being when it's on someone else's face.<sup>10</sup> Even the most casual observer will agree though, a deformity is generally considered a handicap in a culture where social distinctions are based upon age, sex, race, physical normality and attractiveness.<sup>39</sup> Since there is this definite social premium based on physical attractiveness, those who look different are believed to be different and therefore are treated differently.<sup>52</sup>

Many physical traits are used to stereotype people. Several writers have noted the fact that people classify one another by their physical appearance.<sup>10,47,55</sup> Almost everyone who reads the comic strips can conjure up a mental picture of the "typical" criminal type and the "typical" milk-toast with his chinless face.

Meerlo<sup>58</sup> goes further to separate the face as an expression, the face as a mask, the face as a mirror, the face as a label, and the face as a symbol. He states that the face is a prime organ of emotional expression. The first impression of someone else's face makes the most intense emotional appeal. Simply because of man's physiognomic prejudices about the face as a mirror of the soul, several facial forms and structures have automatically become labels for special characteristic evaluations. These include a high forehead indicates intellect, thick lips indicate sensuality, a high prominent nose indicates the person is of Semitic origin, and a blank expression implies an empty mind. None of which are true.

Finally, what happens when a deformed person undergoes a reconstructive operation? The initial effect of the procedure is a symbolic change in the body image with the liberation of affects previously bound. The process is the opposite of that seen when a person suddenly receives a deformity by some form of trauma with consequent use of massive denial which involves the body image.<sup>72</sup> Meyer<sup>62</sup> suggests the term "dedenial." A patient discussed by Berg<sup>7</sup> summed this up very nicely when she said, "It's hard to explain what the change means to me. I feel so good inside, so acceptable to myself." Causing these changes by whatever surgical technique can be of psychotherapeutic importance.<sup>10,20,50,74</sup>

CHAPTER III  
THE ROLE OF THE PSYCHIATRIST IN THE MANAGEMENT OF  
THE PLASTIC SURGERY PATIENT

Historical Background

In 1597, Tagliacozzi,<sup>78</sup> considered to be the father of modern plastic surgery, wrote: "We restore, repair, and make whole the parts of the face which nature has given but which Fortune has taken away, not so much that they delight the eye but that they may bouy up the spirit and help the mind of the afflicted."

In the 1920's, papers were appearing regarding the mental aspects of patients seeking surgical procedures in general. In 1922, Booth<sup>13</sup> made a weak reference to the feelings associated with some deformities in his discussion of the techniques of various plastic procedures. In 1929, Bettman<sup>10</sup> stressed the importance of the surgeon's consideration of the patient's psychological reaction to an anticipated surgical procedure. It was not until 1934, that a surgeon and a psychiatrist collaborated in presenting the psychoanalytic aspects of the plastic surgery patient. These pioneers were Updegraff and Menninger.<sup>81</sup> In 1936, Blair,<sup>11,12</sup> a surgeon, wrote two papers in which he stated that plastic surgery encompasses a psychology that may be most difficult to either interpret or satisfy. Although by 1938, much had been written about post-operative psychosis, Abeles<sup>1</sup> was one of the first to seek pre-operative psychological factors that may precipitate it.<sup>14,21,22,26,36,56,57,64,83</sup>

In 1939, Baker and Smith<sup>4</sup> made personality evaluations of 312 facial plastic surgery patients. From this work they concluded: "Such

patients make the physician realize that his responsibility includes the person as well as the operative field." In 1942, a psychiatrist by the name of Deutsch<sup>25</sup> wrote an article on some psychoanalytic observations in surgery. She stated that the psychiatrist is inclined to blame the surgeon for his unfamiliarity with psychological processes. The psychiatrist sees how many operations are staged out of the patient's neurotic motives. She would like to see the surgeon an ally in combating these motives rather than accepting them.

In 1944, MacKenzie<sup>54</sup> discussed the relationship between neurotic feelings of inadequacy and the indication for plastic surgical procedures. In 1948, the first in a series of ten year studies which involved cosmetic and reconstructive operations on inmates of penal institutions was written. Pick's<sup>70</sup> epic work revealed that there is a relationship between a physical deformity and criminal behavior.

Not until 1949, are a surgeon and a psychiatrist found to collaborate again. These investigators were Linn and Goldman<sup>50</sup> working at the Mount Sinai Hospital in New York City. They presented 58 patients requesting rhinoplasty. From this study there emerged an over-all characteristic of the group, a constellation of symptoms which they designated the psychiatric syndrome of the rhinoplasty patient. They also set down short and long term psychological effects of the surgical procedure and were able to ascertain what, in their opinion, constituted contraindications to surgical intervention.

In 1950, Hill and Silver,<sup>358</sup> also a psychiatrist-surgeon team, working at the Neuropsychiatric Institute in Ann Arbor, Michigan, reported on the multiplicity of underlying incentives which prompt people to undergo plastic surgical alterations.

Also in 1950, MacGregor and Schaffner,<sup>53</sup> a sociologist and a psychiatrist, made a careful sociological and psychiatric survey of 73 patients before and after rhinoplasty. From their study it is evident that applicants for this procedure should be carefully screened. They found that the motives given for the operation often were not the real ones.

In 1952, Palmer and Blanton,<sup>69</sup> surgeon and psychiatrist, also advocated evaluation of the mental state of every patient who seeks surgical correction of a nasal deformity. In doubtful cases they recommended psychiatric consultation.

Therefore, from their meager beginning in the writings of Taglicozzi, through periods when they were dealt with by psychiatrists and surgeons working alone, up until they instigated surgical-psychiatric collaboration which was slow to catch on, the psychiatric aspects of the plastic surgery patient have become the nidus for a voluminous amount of research. From the preceding historical background it would appear that a large part of this work was undertaken prior to 1952. Actually, the great bulk of the literature has been published in the past ten years. It is the opinion of this author that the recent work which has been the most helpful, the best documented, and approached in the most scientific manner has been undertaken at the Johns Hopkins University under the direction of Meyer, Edgerton, Jacobson, and others since 1957.<sup>27,28,29,30,40,41,42,61,62,84</sup>

### Psychiatric-Surgical Collaboration

From the material presented in the chapter on body image it can be readily appreciated that when cosmetic and reconstructive procedures are contemplated, the ultimate goal may be a change in the body image of the patient seeking the procedure. Are the surgeon and the patient capable of understanding the psychological implications of the desired change? If not, then what aid can the psychiatrist offer to both the surgeon and the patient?

From the literature reviewed, a composite of the areas where the psychiatrist can contribute to the clinical management of the plastic surgery patient is presented.

The first area is that of psychological screening. An attempt is made to identify severe personality problems and, in this way, perhaps prevent untimely surgical intervention.<sup>20,29,41,53</sup> This evaluation would also be useful in assessing the patient's capacity to withstand failure.<sup>19</sup> The various authors differ in opinion as to whether or not the seriously mentally ill patient should undergo these types of procedures. Clarkson<sup>20</sup> states that there is an attempt to break away from the rigid conservative approach where the psychotic patient would not be offered a plastic procedure. For carefully selected individuals he advocates plastic revisions as part of a combined psychiatric and surgical treatment of psychotic and psychoneurotic states. To varying extents Linn and Goldman,<sup>50</sup> Meyer and Edgerton,<sup>61</sup> and Hill and Silver<sup>38</sup> all agree.

The second area is in the clarification of the patient's expectations and motivations both to the patient and to the surgeon.<sup>41</sup> Pre-operative psychiatric consultation may allay the patient's indecision



and convince him in his own mind that he either does or does not require surgical intervention. Neuman<sup>67</sup> found that in those patients with vague wishes for a plastic operation, an accurate description of the surgical procedure, stressing the possible complications, is sufficient to deter a substantial number. The remainder should be referred to a psychiatrist for clarification of their motivations.

The third area is that of definitive psychotherapeutic intervention.<sup>41,67</sup> In this realm are those patients who need psychiatric treatment of their emotional disturbance prior to consideration of a surgical procedure. Since many psychiatric problems are manifest by a patient's anatomical concern, correction of the underlying emotional problem may remove or minimize the patient's sense of deformity. Also, expert psychiatric advice can be very helpful in finding alternative solutions to the problems of those patients who are ultimately refused an operation.

The psychiatrist's fourth contribution is in his role as a liaison between the surgeon and the patient.<sup>53,67</sup> The patient may give information to a third party that he feels is not important to the surgeon. For example, a psychiatrist may be alerted by ambivalent feelings toward the operation which could destroy the possibility for a good over-all result even when a good surgical result is obtained. Another case is post-operatively when the grateful patient may be more honest with the psychiatrist than the surgeon in an attempt not to hurt the surgeon's feelings. Edgerton<sup>30</sup> found this to be most true of the women who had undergone rhytidectomy. They were so pleased with the over-all result that they failed to report minor imperfections to the surgeon. By operating as a liaison, the psychiatrist can see that all of this information is brought to the surgeon's attention.

The fifth area is in dealing with the parents of a deformed child whether the deformity be congenital or aquired. Psychiatric help is useful in an attempt to lessen the guilt and/or depression that almost always coexist in these situations and that are so readily perceived by the child.<sup>16,45,79</sup>

The sixth area is in the management of emotional conflicts at the time of the operation<sup>30</sup> and in the facilitation of a healthy psychologic development<sup>5</sup> post-operatively.<sup>41</sup> Since the surgical alteration of a deformity often initiates or catalyzes a healthy psychologic change, the psychiatrist's intervention at this time may be useful in consolidating these changes.

It can again be stressed that there are two concerns when dealing with the plastic surgery patient, the anatomic deformity and the sense of deformity. The surgeon has no choice as to whether or not he will or will not be involved in both areas. His only choice is how he will be involved<sup>41</sup> and how much he will allow clinical psychiatry to contribute to the successful management of his patients.

CHAPTER IV  
COSMETIC SURGERY

Cosmetic surgery has been termed the "Necessary Unnecessary Surgery."<sup>55</sup> A variety of physiologic malfunctions which plague the human body are accepted as valid indications for surgical intervention. To operate for psychologic reasons extends to the parameters of surgery.<sup>42</sup> The plastic surgeon who does cosmetic surgery truly commits himself to psychologic medicine.

In 1936, Blair<sup>11</sup> stated that he was reared in the most orthodox of medical surroundings and for this reason he had often dismissed those patients who presented with minor defects, with some good advice rather than preying on their pocketbooks. Years later, and in the light of what he had learned about the psychological problems of these people, he felt that he had neglected many opportunities to do good.

Aufrecht<sup>3</sup> believes that the justification of any surgical procedure is the good it does for the patient. Any surgery, including cosmetic surgery, is connected with pain, and discomfort. What are the motives of a person, who, anticipating pain, discomfort, and knowing the risk of complications, willingly enters the hospital, lies down on the operating table to submit to an operation? It is not vanity which drives them to this decision since vanity is usually a desire to excel our fellow man. The majority of these people desire only to be inconspicuous.<sup>3,49,59,82</sup>

The borderline cosmetic defect will be presented first since it is common to the subsequent procedures and is perhaps the most deeply

rooted in psychological problems. Rhinoplasty, rhytidectomy and mammoplasty will be presented in that order.

### The Borderline Cosmetic Defect

No hard and fast rule can be set down as to what constitutes a genuine disfigurement. In persons seeking plastic surgical reconstruction for severe and demonstrable physical defects, the external need for the operation is so obvious that the psychological impulse urging them to have it performed may be assumed to be entirely rational and conscious.<sup>81</sup>

Van Duyn<sup>82</sup> believes that when the defect is not obvious, the decision of whether or not to operate may be far less easy to make and may now need to be based, not so much on the expected percentage of improvement as upon the attitude of the patient himself toward his imperfection. Blair<sup>12</sup> reminds us that the casual request for this or that may be a timid expression of the deepest of heartfelt desires.

Several authors have concluded that the borderline cosmetic defect is often well worth correcting, because it may not always be what we actually look like to the outside world that most affects our self confidence and behavior, so much as the way we think we look.<sup>3,50,74,82</sup> Others disagree, warning that although an accurate evaluation is often difficult, the patients who seek surgery because of slight deformities or minor cosmetic problems should be screened carefully. Often they have serious personality problems, unrealistic expectations, and an exaggerated preoccupation with their "deformities."<sup>53,67,69</sup> If the requested procedure is performed in these cases, the patients are usually dissatisfied with the results.

The case that must be considered with special care and in which the operation should at least be postponed is that of the young individual who has begun to blame the presence of a relatively small imperfection for some recent social or scholastic failure. These people should probably not be separated from their excuse as long as the psychologic need for it persists.<sup>82</sup>

It is the opinion of this author that Clarkson<sup>20</sup> has presented a very excellent psychological classification of patients requesting plastic operations and that two of the categories are apropos to the discussion of the borderline defect. The first is a non-psychotic reaction in which the patient's personality disorder or emotional illness can be described as immature, disturbed or damaged. These people focus a large proportion of their overt anxiety or distress upon marginal disabilities or deformities, not necessarily otherwise likely to be regarded as requiring plastic alteration. A proportion of these patients can benefit from plastic operations as a part of the overall therapeutic plan. Others may require psychotherapy, with considerable modification of symptoms, before specific surgery can stand its chance.

The second category is a psychotic reaction where the patient's psychotic illness is characterized by delusions about normal anatomy. Plastic surgical intervention is contraindicated. The patient needs psychiatric care.

In summary, when a person with a marginal defect demands operations for reasons that seem vague, unconvincing or inadequate to the surgeon, the success of the operation depends largely on how it ministers to the patient's hidden needs.<sup>3,6,50,74,81,82</sup> All of these patients should be

carefully screened from a psychological standpoint.<sup>53,67,69</sup> Some may benefit from plastic procedures as a part of the overall therapeutic plan.<sup>20,30,61,74</sup> Others may require psychotherapy.<sup>20,84</sup>

### Rhinoplasty

Rhinoplasty refers to any of several plastic procedures performed on the nose whether its purpose be to lengthen, shorten, straighten or remove unwanted contour. Ethnic and hereditary background produce the largest number of "deformities."<sup>55</sup>

When we talk about the appearance of the nose what we really mean is the effect of the nose upon the face.<sup>3</sup> The nose is the most conspicuous structure in the human body.<sup>3,50</sup> There is no way to hide it except by hiding the entire face.<sup>50</sup>

In many expressions, the unconscious phallic meaning of the nose plays a role. A large nose is a symbol of sexual potency. The wish to make it shorter and smaller may symbolize a defense against one's own sexual drives.<sup>58</sup> Cyrano de Bergerac, who felt his sexual drive ugly, is the classic example.

Since the nose is an organ with secondary sexual characteristics, it undergoes a period of increased growth at puberty and for this reason the psychiatric syndrome of the nose rarely begins before this time.<sup>50</sup> Rhinoplasty patients frequently give a history of rejection, ridicule, or discrimination beginning in the pubertal period.<sup>38</sup>

In determining why these people ultimately seek plastic revision, motivation is found to be based on three groups of factors.<sup>62,79</sup> The first are the conscious factors; these being the culturally implemented

and realistic wishes for beauty, attractiveness and acceptance. The second group are the preconscious factors. These include a preconscious awareness by the patient of relatively rigid, restrictive, parentally-acquired attitudes toward sexuality and the feminine role which effectively block the expression of basic emotional and instinctual life. Secondary affects of shame, guilt, and anger derive from this sense of being blocked and add to the sense of physical deformity. The third group of factors are unconscious. They involve deeply rooted, ambivalent identification with one or both parents, generally the father. This ambivalent identification is actively disavowed by the patient. The fact that the sense of facial deformity actually does act in the service of denial and bind affects is most explicitly demonstrated in the acute and occasionally even explosive derepression of affects that are observed in the immediate post-operative period, chiefly the first five days.<sup>30,62</sup> As has been stated previously, the initial effect of surgery is the liberation of affects previously bound.<sup>72</sup>

More simply, the following sequence of events is postulated. The patient had an early ambivalence toward her mother. She then identified through imitation with her father as a partial solution. Later there was a consolidation of character structure on the basis of identification with her father. She then desires to remove a feature which, to her, has assumed male symbolism. Post-operatively there is an explicit reconciliation with her mother and an expression of resentment at her father for having encouraged her in the tomboy role.<sup>62,79</sup>

It was found that even in the older and married patients, the mother's reaction of approval or disapproval toward the result is the

major concern of the patient. In a significant number of patients there has been definite increase in actual intimacy and mutual respect between the mother and the patient.<sup>62</sup> Many patients have a sense of increased femininity.<sup>50</sup> These facts add support to the idea that a sequestered ambivalence in the patient's identification with her mother is of central importance in the patient's sense of ugliness and facial disharmony and in the request for rhinoplasty.<sup>62</sup>

Symbolic equivalence between the nose and genitalia, both male and female, does not throw light on why one person rather than another comes to focus on a sense of nasal deformity. Who, then, is the rhinoplasty patient?

Although numerous papers have been written on the various aspects of rhinoplasty, it is the opinion of this author that there have been three significant studies undertaken with respect to the psychological aspects of the rhinoplasty patient. These are the studies of Meyer, Jacobson, et. al.,<sup>42,62</sup> Hill and Silver<sup>38</sup> and Linn and Goldman.<sup>50</sup> Since their findings differed quite markedly in some respects, each study will be discussed and its conclusions presented. It will be helpful to keep in mind that the publications of the first authors appeared ten and eleven years respectively after the others.

Meyer, Jacobson, et. al.<sup>62</sup> report 30 consecutive women who came to the plastic surgeon for consideration of rhinoplasty. Deformities of traumatic origin were not included. The patients spent from one and a half to eleven hours with the psychiatrist prior to the surgical procedure and were then followed during their hospitalizations with attention toward behavioral aspects on the surgical ward. They were seen in the post-operative period at two weeks, two months, six months and one



year. A battery of psychological tests were given pre-operatively and six months post-operatively. These patients had been relatively free from physical and psychiatric illness; however, a psychiatric diagnosis was made in 16 of the 30. Of these, only one was psychotic. Of the remainder, two were severely neurotic, eight were obsessive personalities, and four were schizoid personalities. The traits of the 14 patients on whom the psychiatrist made no diagnosis also tended to be obsessional-schizoid. Since these authors state that they found little psychiatric illness in the pre-operative period, the above list of diagnoses could perhaps best be clarified by a statement they made in another article:<sup>28</sup> "The vast majority of people so diagnosed (personality trait disorder) would, at most, come to non-psychiatric attention as 'shy', 'rigid', 'timid' and so forth."

The complaint of these patients was generally a sense of disharmony or inappropriateness between the shape of the nose and the rest of the face. It was generally characterized as being too long. Two-thirds of the patients identified their nose with that of their father; stating it would look better on a man's face.

From their candidates they concluded that the "typical" female rhinoplasty patient is plain in appearance, rigid, muscularly awkward or constrained, tense and apparently shy. They have a striking absence of histrionic trends or conversion symptoms.

Twenty-six of the 30 patients were operated. Ten of these had significant post-operative emotional disturbances. Three of the ten had acute disorganizations of psychotic proportions lasting up to six weeks. The other disturbances were brief reactions involving a mixture of anxious, panicky, and depressed feelings, most commonly on the third post operative day.

Linn and Goldman's<sup>50</sup> study included 58 patients who sought rhinoplasty. These patients were seen by a psychiatrist two or more times pre-operatively and at least six times at various intervals post-operatively. No attempt was made to screen patients for the surgeons or to treat psychotherapeutically patients who were obviously in need of treatment. Because of the nature of their study, all of the patients were operated in sequence purely in accordance with the surgeon's surgical judgement.

They found that only five percent of these patients requested the operation for vocational reasons, e.g., entertainers who were often forced to meet certain conventional standards of beauty in order to obtain jobs. With few exceptions they found that most of the others were clearly ill from a psychiatric point of view. These illnesses varied from minor neurotic reactions to overt schizophrenic psychoses. No indication is given in the article as to how many were actually psychotic. However, eleven years later when Linn<sup>62</sup> commented on the work of Meyer, Jacobson, et. al., he stated that he found far more mental illness in the pre-operative period.

From this study there emerged an over-all characteristic of the group which they designated the psychiatric syndrome of the rhinoplasty patient. This syndrome of excessive self-consciousness relating to the nose, results in constriction of bodily movements, plainness of dress, shyness, seclusiveness, and anxiety in social situations. This is in complete agreement with the previously described "typical" female rhinoplasty patient.

Although no definite figures are given, they state that they found very little psychological turbulence in the immediate post-operative period. They concluded that the contraindications to rhinoplasty are rare. Psychosis is a rare complication; that is, the danger of precipitating a psychosis where none existed before is minimal.

Linn and Goldman describe the surgical effect as an immediate reaction of elation with a rapid reorganization of the patient's mental image of himself. Preoccupation with the nose disappears and anxiety and awkwardness decrease. The long term effect is a level of adjustment between the pre-operative state of maladjustment and the initial post-operative elation.

Hill and Silver's<sup>38</sup> study included 48 consecutive plastic surgery patients who underwent careful psychiatric interviews either before or after their surgical procedures. No cases of trauma were included. Of the 48 patients, 39 were rhinoplasty candidates. The ratio of men to women was about two to five. Each of these patients spoke of some altered emotional pressure in his environment prior to consulting the surgeon.

Although only one patient in this study was psychotic, an overwhelming number of neurotic patients presented themselves with no other complaint than their discontent with their appearance. The authors concluded that it would not be much of an exaggeration to state categorically that the desire leading to actual consultation of the surgeon should in itself be regarded as a symptom of neurosis. They also stated that if their series is any criterion, it would be the exception to find the motivation for plastic alteration a wholly rational response to a realistic situation.

In reference to the post-operative results they state that, in general, if the psychic energy bound to the unpleasing aspect of the body image has been of little defensive value to the ego and has given little secondary gain, the prognosis for the emotional response to the surgical procedure is favorable.

In summary, all three studies are in general agreement; however, Meyer, Jacobson, et. al. report less mental illness in the pre-operative period and more turbulence of a psychological nature in the post-operative period than was reported in the other two studies. It appears to this author that these three sets of men are using different criteria for what they term psychological problems and that, in fact, all three are describing a group of patients with a great deal of underlying and overt psychopathology. (Table I).

For completeness, two further studies are included. MacGregor and Schaffner,<sup>53</sup> a sociologist and a psychiatrist respectively, have very completely listed both the social and psychological motives compiled from a series of 73 applicants for rhinoplasty. Most of their observations have been discussed and therefore will not be repeated. In addition they enumerate factors which might contraindicate rhinoplasty. These are given as: (a) a confused, vague, or unconvincing request; (b) a complaint not justified by the actual appearance; (c) the defect the patient wants corrected is less noticeable than one he ignores; (d) expectations from the operation are excessive or obscure; (e) outlook for surgical improvement will not meet the patients hopes; (f) the patient's psychologic unreadiness for an operation; (g) the request for the operation is due to pressures of others rather than to the conviction

TABLE I

## SUMMARY OF THE 127 RHINOPLASTY PATIENTS

	Meyer, Jacobsen, et.al.	Linn and Goldman	Hill and Silver
Year of Publication	1960	1949	1950
Rhinoplasty Candidates	30	58	39
Number Operated	26	58	39
Psychological Work-up Used in Deciding to Operate or Not	yes	no	no
Reason for Seeking Plastic Alteration	General sense of dis- harmony or inappropri- ateness between the nose and the rest of the face	Five percent for vocational reasons. No reason given for the remainder.	Some altered environ- mental pressure
Description of the Psychiatric Problem	Psychotic -- 1 Severely neurotic -- 2 Obsessive personalities -- 8 Schizoid personalities -- 4 Remaining 14 tended to be obsessionalschizoid (no psychological diagnosis made)	All were psychiatri- cally ill (This varied from minor neurotic reactions to overt schizophrenic psychosis)	Psychotic -- 1 All others neurotic
Psychological Findings in the Immediate postopera- tive Period	Significant postopera- tive emotional distur- bance	Very little psycho- logical turbulence	No findings reported

TABLE I CONTINUED

	Meyer, Jacobsen, et.al.	Linn and Goldman	Hill and Silver
Phenotype Conclusions	The "Typical" Female Rhinoplasty Patient: Plain in appearance, rigid, muscularly awkward or constrained, tense and apparently shy	The Psychiatric Syndrome of the Rhinoplasty Patient: Excessive self-consciousness relating to the nose results in constriction of bodily movements, plainness of dress, shyness, seclusiveness and anxiety in social situations	All neurotic (The act of consulting with the plastic surgeon should be considered a symptom of neurosis)
Opinion of the Authors Toward Their Over-all Result	Favorable change in the patient's psychological function	Favorable change in the patient's psychological function	If the psychic energy bound to the defect has been of little defensive value to the ego, prognosis is favorable

on the part of the patient; (h) a history of hypochondriasis with requests for operations of various kinds without an adequate cause; (i) previous rhinoplasty which failed to please the patient; (j) a history of consistent, severe maladjustment in life situations; (k) placing the responsibilities for his difficulties in life outside himself, without insight into his own part in them; and (l) a history of past psychiatric disturbance, which requires consideration whether or not the operation may upset the emotional equilibrium.

It is readily appreciated that, while these are good points to keep in mind, if the plastic surgeon subscribed to all of these contraindications, he would be extraordinarily conservative in his approach. Most writers take an intermediate stand and many even advocate a plastic operation as part of a physio-psychotherapy program.

The second study presented for the sake of completeness is, in the opinion of this author, a rather strange and yet unique slant on the long term psychological aspects of the facial plastic surgery patient. The idea, propagated by Meerlo<sup>58,59</sup> and to the author's knowledge not yet expounded on by other writers, is that the owners of the new conventional faces made possible by plastic surgical techniques are, in the late post-operative period, desirous of having their "unconventional" faces back. He thinks that after a person has been raised to be "well-adjusted" in a society that demands conformity, he becomes a faceless personality. Following a plastic surgical alteration, these people feel as though they have given up the nucleus of their personalities. They want to have their old identity back in a last rebellion against the molding, conforming influences of society. Meerlo believes that self acceptance even with a crooked nose is the beginning of self affirmation.

### Rhytidectomy

Rhytidectomy and "face-lifting" are terms that loosely describe eight or ten different plastic operations used to return the face and neck to a more youthful appearance.<sup>30</sup>

The face is the chief element in the external representation of the personality.<sup>58,81</sup> As the face changes with age, so does the observers perception of the personality. For example, there is the stereotyped personality that is expected from the little old lady with gray hair and wrinkled face. If she were to dye her hair red and have her face lifted the observer would expect an entirely different personality to emerge.

Harman<sup>37</sup> cites several theories of aging. These include colloidal aging theory, energetic theory, intoxication theory, somatic mutation theory and the free radical theory. While it is not the purpose of this paper to elaborate on these various postulations, it can be simply stated that the changes seen during senescence are primarily those of an atrophic nature: loss of contractility, fragmentation of collagen tissue, basophilic degeneration of elastic fibers, and fragmentation and hyalinization of collagen fibers.<sup>44</sup> These changes lead to relaxation of the skin and allow it to fall in folds and wrinkles. It is the effect of these folds and wrinkles on the psyche that concerns us here.

At the present time the changes associated with aging are progressive and there is no feasible way to prevent them on a permanent basis.<sup>44</sup> Rhytidectomy, however offers an interlude during which the appearance may be considerably improved. This procedure usually results in making the patient look five to ten years younger. The change is real-istic enough to account for the almost universally happy response.<sup>38</sup>



According to Masters and Robinson<sup>55</sup> the surgical correction is not permanent and the loss of skin elasticity slowly recurs over a three to five year period. Rhytidectomy can be repeated however this is seldom carried out as the vast majority of patients desire only temporary relief of a sudden and premature aging process rather than eternal youth.

Edgerton, et.al.<sup>30</sup> report their findings from a series of 106 consecutive patients seeking facial plastic surgery for sagging skin. A rhytidectomy was performed on 64 of these patients. No procedure was performed on the other 42 because of a decision of the patient, the surgeon, or the psychiatrist. In a few instances the decision was made for economic reasons.

Sufficient data were available on 72 of the 106 for meaningful psychiatric analysis. Of the total number of patients, 91 percent were female and nine percent were male.

From their observations they concluded that the "typical face lift" patient is a 48 year old, white, married, Protestant woman of upper middle income status. She is gainfully employed or engaged in civic and cultural activities in her community. She is eager to continue her active participation in life.

Seventy-four percent were diagnosed as having some associated but not primary psychiatric disorder. However it must be pointed out that several studies show up to 80 percent of all types of patients coming to large medical clinics have secondary psychiatric disorders. 30,79 Be that as it may, 34 of these patients were given a psychiatric diagnosis. The most common diagnosis was neurotic depressive. Others made frequently were emotionally unstable personality and passive dependant personality.

Younger patients, especially those less than 40 years of age, were found to have greater past and present problems with personality adjustment. These observations led to careful screening of the motivations of the patients in the different age groups. Thus the female patients were divided into three groups by age.

Those between the ages of 29 and 39 were labeled the emotionally dependant group. They constituted 22 percent of the total. Long histories of internal psychologic conflicts were elicited. They tended to be insecure and dependant on their spouses. They had difficulties in assuming the responsibilities of adults and had hostile dependant attitudes toward their parents. They were of lower economic status and were less concerned with social prestige than the older patients.

Those between the ages of 40 and 50 were designated the worker group. They constituted 37 percent of the total. Their major motivations were to meet vocational requirements for a youthful, attractive appearance. Most held professional or semiprofessional jobs. They tended to be careful shoppers about surgery and further tended to demand that rhytidectomy would remove all signs of age.

Those 50 years of age and older were entitled the grief group. They represented 40 percent of the total. Two-thirds of this group was grieving over the death of a spouse or separation from children. They stated that they thought the operation would give them self confidence, self-esteem, and a new chance to make friends. If looked for, underlying depression was very common in this group.

The characteristics of the group of people who sought rhytidectomy but who were not operated are also important. These persons

tended to be significantly younger in age, had a higher incidence of previous psychiatric treatment, and suffered from a much higher incidence of family disruption in childhood. Of this group 50 percent were refused the operation on psychiatric or physical grounds.

Post-operatively the course was generally mild and without serious emotional disturbance. This was noticeably different from rhinoplasty and augmentation mammoplasty patients studied at approximately the same time also at the Johns Hopkins University.<sup>29,62</sup>

Every patient receiving rhytidectomy said she was glad she had undergone the operation. There have been few procedures in surgery that are so uniformly satisfactory to patients. They also observed a high level of objective improvement in the life situations of the patients post-operatively. Hill and Silver<sup>38</sup> agree with the almost universal happy response. They add that for certain reactive depressions, for example the death of a spouse, the operation in addition to supportive psychotherapy has given remarkable results and has a good prognosis. For patients undergoing an involuntional depression the procedure is of less value.

According to Edgerton, et. al.<sup>30</sup> a satisfactory psychological result depends on: (a) the patient's approach to the operation; (b) the relationship established with the surgeon; (c) the amount of actual anatomic improvements the facial skin and subcutaneous tissue permit; (d) the potential for realistic improvement in the patient's environment as a result of the surgical experience; and (e) the amount of "feed-back" (vote of approval) from friends and associates.

In Webb's<sup>84</sup> follow-up of the patients in Edgerton's series he found that all but one expressed satisfaction with the results. In some of these cases the surgeons had judged the anatomic change to be only fair. Those who seemed most pleased were the middle-aged individuals who, following rhytidectomy, experienced a positive, definite change in their life situations.

### Mammoplasty

Mammoplasty refers to operations which are designed to remold the breast tissue. Two groups of breast deformities are of concern to the plastic surgeon who performs cosmetic surgical alterations. These are micromastia and macromastia.<sup>55</sup>

Although as early as 1922, Booth<sup>13</sup> noted the embarrassment which may accompany large pendulous breasts, very little has been written on the psychiatric aspects of mammoplasty. Incidentally, this was before the advent of augmentation mammoplasty.

Edgerton and McClary<sup>27</sup> feel that "reduction" mammoplasty (for large breasts) is primarily an anatomical problem and that the relief of the physical difficulties will usually yield a happy result. In contrast, they feel that "augmentation" mammoplasty (for small breasts) is usually requested by patients with emotional problems and occasionally by patients with no obvious anatomical defect.

In 1958, Edgerton and McClary<sup>27</sup> reported on a series of 32 women who were seen at the Johns Hopkins University for consideration of augmentation mammoplasty. These patients presented as a heterogeneous group by all ordinary criteria. Several were diagnosed as seriously mentally ill; however, the majority were within the limits of "normality," as these limits are ordinarily defined.

In all except two of the patients, almost all of their feelings were focused on the contour and size of their breasts. There was a uniform feeling of great pleasure to "get the operation." All reported the feeling of inadequacy since puberty. A notably high incidence of shaming had occurred in the childhood experiences of these patients and a very high incidence of divorce and separation among their parents was found --- 86 percent of the two-thirds interviewed in regard to this point.

Interestingly, all of the patients studied by the psychiatrist were involved in major life alterations; most commonly separation or divorce, 90 percent, or in major readjustments within a marriage.

All except one of the patients were married and almost all were the dominant members of their marriages with rather astounding passivity noticed in many of the husbands. This and other data confirmed the general impression that the women in this group were in some respects more active and competent than their spouses. A high proportion of the home situations were attended by a latent depressive reaction.

The patient's concept of herself was "unacceptable," "hollow," "empty inside," and "inadequate." The deepest meaning of the punishment for having no breasts, or small breasts, was related to guilt about affectionate and sexual feelings for their fathers. The phallic symbolism of the breasts is frequently recognized.

The results of the operations were unquestionably successful. Not only did the anticipated change in self image occur, but the gains have been consolidated with increased social ease, loss of self consciousness, and with a change in the fixation of feelings on the breasts. The prediction that some other fixation would develop has not been borne out.

In 1961, Edgerton, Meyer and Jacobson<sup>29</sup> presented further surgical and psychiatric evaluations of mammoplasty. Their follow-up of the original 32 patients revealed that all remained pleased and all stated they would have the operation again. It should be noted that the material (polyvinyl alcohol, "Ivalon") used in these initial patients tended to harden with time. This, however, did not seem to have a deliterious effect on the subjective results.

Further studies were undertaken with two more groups of women. The materials (polyurethane and polyether) used differed and less hardening was noted. The results again were highly satisfactory from a psychiatric standpoint.

From these later studies<sup>29</sup> the average augmentation mammoplasty patient was derived. She is a white, married, Protestant housewife, aged between 27 and 33 years. She tends to be in the middle socio economic class and she is likely to be involved in a strained marriage. A high percentage have a history of depression.

Since about half of these patients had acute transient emotional disturbances in the immediate post-operative period,<sup>28</sup> these authors concluded that a joint approach by the psychiatrist and the surgeon is necessary in the treatment of some of these patients. The psychiatrist can help in picking the proper time for an operation and thereby reduce the danger of post-operative depression.

## CHAPTER V

### RECONSTRUCTIVE SURGERY

Reconstructive surgery refers to the rebuilding and reconstructing of damaged or destroyed areas and to the repair of congenital malformations.<sup>39</sup> Since the damage to the person's body image is different, congenital and early acquired defects will be separated from the defects acquired later in life. A disfigurement occurring earlier in life would have been incorporated in the body image as it developed, whereas a person who has been disfigured later in life will suffer different emotional trauma because readjustment of his body image is necessary.<sup>79</sup>

#### Congenital and Early Acquired Defects

At one time it was frequently stated that a surgical procedure in a child under the age of three years is a traumatic experience and that elective surgery is best postponed until at least the age of five years.<sup>43,48</sup> MacGregor<sup>52</sup> concluded that if elective surgery cannot be undertaken in the first year of life it may be best postponed until the child can understand what is said to him. Kreshy and Simon<sup>45</sup> strongly disagree. It has been their experience that a child under the age of five may suffer keenly from a disfiguring congenital defect and that this unhappiness may be responsible for more serious damage to the child's ego than would a series of surgical procedures. It is their feeling, and that of others, that the repair of these defects should be undertaken as early as is compatible with the infant's physical ability to undergo the procedure.<sup>16,45,69</sup>

When the child is deformed, the parents are likely to adopt a self conscious attitude both toward the defect and toward the child.

16,45,64,79,5 All parents have intense feelings of guilt.<sup>45</sup> Even the very small child perceives these attitudes and adopts similiar self conscious behavior with its concomitant anxiety.<sup>16,45,79</sup> In the child, as in the adult, the attitude of the afflicted toward his deformity will depend to a large degree on the attitude of his associates,<sup>69,79</sup> in this case his parents. If they accept his defect and treat him normally, the abnormality of appearance has little emotional significance.<sup>79</sup> Several authors have observed that the everpresent consciousness of an inferior appearance, especially if aquired early in life or congenitally, tends to thwart the normal development of the personality.<sup>54,79</sup>

Kreshy and Simon<sup>45</sup> state that parental attitudes should be discussed in detail and joint conferences of parents, pediatrician, psychiatrists, and surgeon must take place in order to set up a treatment program adequate both physically and emotionally. Bryt<sup>16</sup> further states that when the corrective procedure must be delayed for technical reasons, preventive mental health measures are strongly indicated. The parents should be taught how to recognize and avoid over-protection and they should be prepared for the frustration of attempting to treat the child in a normal manner. Again the interdependence of the surgical-psychiatric team can be appreciated.

#### Defects Aquired Later in Life

Blair<sup>11</sup> points out that while certain defects are so evident that one is not likely to seek less obvious reasons for their correction, these patients frequently have a reaction that is not taken into account by the surgeon when he is planning his surgical approach. The psychological impact associated with a sudden change from normal to grotesque



may be severe.<sup>55</sup> What are these psychological reactions and why do some people accept a traumatic deformity with little apparent psychic trauma while others immediately seek the help of the plastic surgeon?

Palmer and Blanton<sup>69</sup> answer this at least in part by stating that the capacity of a person to tolerate deformity depends to a large extent upon his previous character pattern. Bryt<sup>15,16</sup> warns that it is extremely pertinent to know what experiences and personality disorders the patient had prior to the occurrence of the deformity. For example, if the patient had been leading an isolated existence prior to the incident he may unconsciously welcome the disfigurement as an explanation of his isolation. The correction of the defect would return the patient to the dilemma which he was unable to resolve prior to the event. In this case a good anatomical result could precipitate a psychological break.

Of those patients who do request plastic procedures for the correction of their deformities, most will fall into three of the categories in the classification of patients requesting plastic operations.<sup>20,79</sup> The first category includes persons of normal personality and mental health. In these cases the psychological effects of their disabilities may be regarded as being purely secondary, and likely to improve with the overall improvement effected by the plastic procedure. The second group includes patients with immature, disturbed, or damaged personalities who have the same deformities as the patients in the first group. Individual reactions of such patients may vary widely and careful psychiatric assessment is always desirable. The third group includes psychotic individuals whose delusions or depressive reactions

center upon actually existent structural deformity. In these cases a combined psychiatric-surgical assessment is mandatory. Individual delusions may be relieved by plastic correction but the psychotic illness remains.

In summary, the results obtained by corrective surgical procedures performed for acquired defects depends to a large extent on the person's personality make-up prior to incurring the deformity. Most of these people will fall into three categories of psychological reactions to their deformity. Where the surgeon is in doubt about a particular patient's reaction, a psychiatric consultation is invaluable. If the patient is psychotic, the consultation is mandatory.

## CHAPTER VI

### THE MALE PATIENT

In the chapter on cosmetic surgery an attempt has been made to deal only with female patients. In those cases where there have been men included in the studies presented, they have constituted only a small percentage of the total number of patients. The reason for this separation is that the male who seeks cosmetic surgery is more likely to be seriously mentally ill. Although only a few papers have been written on the male patient, exclusive of studies on prison inmates, all of the authors agree on this point.<sup>30,40,42,50</sup>

Edgerton, et.al.<sup>30</sup> feel that when one reflects on the cultural barriers that a man must overcome before reaching the plastic surgeon, it is surprising that so many arrive, even for consultation. Who, then, are these highly motivated people?

Jacobson, et.al.<sup>40</sup> evaluated the psychological aspects of 33 men seeking cosmetic surgery. In this study they held psychiatric interviews, gave pre- and post-operative self administered psychological tests, and made use of material from medical histories, observations of the patients on the wards and in the clinics, and reports from the nursing and surgical personal.

All of these patients had a minimal deformity that was not the residuum of trauma or major congenital malformation. All of the complaints and symptoms were of a cosmetic nature. No patient was excluded because of economic or social status.

From this study they were able to define the "typical" male rhinoplasty patient. He is somewhat forelorn, guarded and earnest.

His muscular tone is exaggeratedly relaxed, as if forced. His voice is soft and his affect is one of worried, guarded dreariness, lacking in vigor. He is generally humorless and seems somewhat preoccupied. Social amenities are handled awkwardly. He expresses the urgency common to all cosmetic patients, but he seems to feel as if it would be unlikely that he could make this understood. Dress, though neat, is neutral and uncolorful with posture and manner apparently designed to be such that he can be easily overlooked. Facial and vocal expressiveness are flat or fixed. He is not easy to interview, using stereotyped responses to keep distance and guard fantasy. When pressed, he tends to repeat rather than expand; rapport with him is usually established slowly and is hindered by his difficulty for free and easy exposition. Affective display is not marked and when present has a dramatic quality, usually directed in services of power and frequently not consciously related by the patient to the material under discussion. In addition, 50 percent were Catholic; most were of Italian parentage.

Thirty-one of the 33 were given a psychiatric diagnosis. Seven were diagnosed as being psychotic; six of these were schizophrenic. Some of the features characteristic of the group were that all had major problems about heterosexual effectiveness, all had a closer, more comfortable relationship with their mothers than with their fathers, and all the patients operated on expressed a sense of subjective satisfaction. Even in light of the last feature cited, it was the opinion of the psychiatrist that there was no marked change in the patients' personality limitations.

With reference to the motivations of these patients, consciously, they compare their personalities to their mother's and they are relatively unaware of their intense rage of her. Most of the fathers of these patients have been unavailable through absence, distance, rejection, or unsuitability. The patient's sense of deformity is frequently linked with a conscious wish to dissociate himself from the father's undesirable traits or weaknesses.<sup>40,79</sup> At the more unconscious level, his motivation involves a wish to dissociate himself from a primitive destructive rage, primarily directed at his mother, from which he has not been helped or rescued by his father. Therefore, cosmetic concern contains the joint message of his failure to master intense ambivalence in relation to his mother and failure on the part of his father to help him out of his situation. These conflicts remain in the background of all of his dealings with people and, in particular, with women.

Edgerton, et.al.<sup>30</sup> included six men in their rhytidectomy series. All of these patients had a past history of emotional illness and all were given a psychiatric diagnosis as part of their plastic surgery work-up. DeBeauvoir<sup>24</sup> points out that the transition from youth to old age may be more abrupt and stressful for women than for men because their lives are more intimately bound to their "physiologic destiny." In addition to the cultural barriers already discussed, this may well be another reason why so few men inquire about this procedure.

In view of the difficult personality problems and the likelihood of minimal success, psychiatric consultation is advised for the male patient who seeks cosmetic surgery.<sup>30,40</sup>

Edgerton, et.al.<sup>30</sup> postulate that as the cultural patterns change, we may see more men of the less disturbed type seeking cosmetic surgical procedures.

## CHAPTER VII

### PLASTIC SURGERY AND THE PRISON INMATE

From its meger beginning in 1937 when Pick<sup>70</sup> was approached concerning the possibility of performing plastic surgical procedures on prisoners in the Illinois penal institutions, the plastic surgery program at these institutions had grown to include 22 states, including Nebraska, in 1966. At that time twelve more states expressed a desire to establish the program.<sup>75</sup>

The purpose of the first study was to demonstrate the association between bodily deformity and crime. This concept is indeed not new. Shakespeare clearly refered to it in these lines from Richard III:

I, that am curtail'd of this fair proportion,  
Cheated of feature by dissembling nature,  
Deform'd, unfinish'd, sent before my time  
Into this breathing world, scarce half made up,  
And that so lamely and unfashionable  
That dogs bark at me as I halt by them,  
Why I, in this weak piping time of peace,  
Have no delight to pass the time,  
Unless to spy my shadow in the sun  
And descant on mine own deformity:  
And therefore since I cannot prove a lover,  
I am determined to prove a villain  
And hate the idle pleasures of these days.

Pick's<sup>70</sup> series included 556 defects that were repaired on 376 inmates over a ten year period ending in 1947. The majority of these were obvious congenital and aquired defects, however 15 percent were for cosmetic reasons.

From his study the following conclusions were made: (a) a physical defect, though usually only a contributing factor, can be the dominant cause of crime; (b) the correction of defects in these inmates strikingly influences their conduct during incarceration; (c) removal of

such defects makes the inmate far more confident of his re-entry into society; (d) correction of the defect has salutary effects upon his associates and family; and (e) a markedly low percentage (1.07) of these inmates were returned to the prison over a ten year period.

In 1953, a ten year study was started at the Oakalla Provincial Prison in British Columbia.<sup>49</sup> Although Pick's name is not mentioned, the purpose of their study, as they state it, is a repetition of his conclusions.

They operated upon 450 inmates. Their most obvious result was an improvement in general behavior. They also noted that those inmates who had undergone plastic procedures were more ambitious in their requests to learn a trade. Of those operated upon, there was a 42 percent recidivism rate, whereas in the general inmate population it was 75 percent. Their conclusions were verbatim repetitions of the first three that Pick made.

In 1954, a ten year study was begun in the Texas prison system.<sup>75</sup> Over the ten years that followed, 1,321 plastic procedures were performed. The conclusions were much the same as those previously reported. They also made a survey of the recidivism rate. Over a five year period 17 percent of the operated inmates as opposed to 31.6 percent of the general prison population were returned with a new sentence upon discharge.

In concluding their discussion of this series, Spira, et.al. state, "It would be egotistical and naive for a surgeon to assume that a prisoner's successful return to society is made possible as a direct result of a skillfully-performed operation, and that alone; but we are



convinced that it does have a definite beneficial effect, and that the elevation of his morale, or self-esteem, is manifested by a less belligerent attitude toward others because of the new image of himself which has been projected to the outside world by means of plastic surgery and which, subsequently, has been reflected in the mirror of his own thought."

In 1967, Kurtzberg, et.al.<sup>47</sup> reported on a series of 433 subjects from New York penal institutions. The hypothesis was that improvement of self image is related to successful rehabilitation.

Candidates were selected from a group of short term male offenders who had a defect reparable from a purely surgical point of view and who had no significant psychiatric contraindications. The four most common defects were nasal deformities, needle tracts (heroin addicts), facial scars, and tatoos.

Psychologic tests were used in screening. The Minnesota Multiphasic Personality Inventory (MMPI) revealed that all prison inmates show greater psychopathology than a normal population. The significant finding was that inmates who requested correction of deformities were even more disturbed than a control prison population. The rhinoplasty group revealed the highest level of depression and rated highest on the MMPI psychopathic deviation scale. This coincides with the findings of Jacobson, et.al.<sup>40</sup> who reported a high degree of depression among private male patients requesting rhinoplasties. Those requesting needle tract removal also revealed a high level of depression, a frequently observed personality characteristic of the narcotic addict. The facial scar group scored higher on the paranoia and schizophrenia scales. Both the facial scar and tatoo groups revealed a higher degree of

hypomania in relation to depression. This finding helped to explain the frequent hostile behavior of those with facial scars and tattoos seen during hospitalization.

Another psychological test given was the Tennessee Self-Concept Scale (TSCS) which measures five dimensions of self concept: physical, moral-ethical, personal worth, family, and social (interpersonal). The results of this test revealed that the prison population ranks lower in self-esteem, both over-all and physically, than do normal persons. Further, the over-all self-esteem of the inmates requesting rhinoplasty and removal of needle tracts is significantly lower than the other two groups and also lower than the prison control group. This low self-esteem is related to the high level of depression that the MMPI revealed.

Other psychological tests given were Sacks Sentence Completion Test and Draw-A-Person Test. The findings from these two corroborate those of the MMPI and TSCS.

The psychological contraindications to a plastic corrective procedure as determined by this study are an irrational over-emphasis on the deformity and severe psychosis.

In the determination of motivation, rhinoplasty candidates were found more often to mention appearance and functional impairment; often emphasizing concomitant respiratory difficulties that were frequently non-existent. The other three groups stressed social and vocational handicaps. The rhinoplasty patients were more strongly motivated but their reasons were frequently less rational.

The patients in the four groups can be summarized as follows:

Rhinoplasty group: a. low over-all self concept

b. likely to be depressed

c. strong, often irrational motivation

d. likely to be withdrawn and unrelated to people

e. more likely to be Caucasian

Facial Scar group: a. frequently incarcerated for assault

b. usually revealed bizarre thought processes and  
paranoid tendencies

c. self concept relatively high

Tattoo group:

a. impulsive

b. poorly motivated

c. hyperactive --- oriented toward interaction with  
people

d. preoccupied with physical self or image (this may  
explain his interest in bodily adornment)

Needle Track group: a. impulsive

b. poorly motivated

c. depressed

d. low self-esteem

e. more likely to be Negro (needle tracks are more  
conspicuous on dark skin)

In summary, three papers have been presented all revealing that improvement of self image plays at least a part in the recidivism rate of prison inmates. The fourth paper deals mainly with the determination of psychological prototypes of the various physical defect groups and their motivations for requesting corrective procedures.

## CHAPTER VIII

### SUMMARY

A survey of the literature with emphasis on the psychiatric aspects of plastic surgery has revealed that a voluminous amount of research has been undertaken in this field; most of which reveals how deeply the deformities amenable to this type of surgical correction are grounded in psychopathology.

Since plastic surgery would never have evolved without the human being's concern for body image, this is discussed briefly with emphasis on development of a normal body image, psychological reaction to deformity, and finally psychological reaction to removal of the defect.

The role of the psychiatrist in the management of the plastic surgery patient has changed and grown since the advent of the psychiatrist-surgeon team in 1934. The six areas where the psychiatrist may prove a definite asset are: (a) psychological screening; (b) clarification of the patient's expectations and motivations; (c) definitive psychotherapeutic intervention; (d) role of a liaison between the surgeon and the patient; (e) dealing with the parents of a deformed child; and (f) helping with emotional conflicts at the time of the operation and in the post-operative period.

Cosmetic surgery and the various views on the indications for operating, especially when the defect is borderline are discussed. All patients presenting with minor defects should be carefully screened from a psychological standpoint. Some may benefit from plastic procedures as a part of the over-all therapeutic plan. Others may require psychotherapy.

In reviewing candidates for rhinoplasty, rhytidectomy, and mammoplasty, a great amount of overt and underlying psychopathology is found. For each procedure the "typical" patient has been determined.

Female Rhinoplasty Candidate: She is plain in appearance and dress, rigid, muscularly awkward or constrained, tense, shy and anxious in social situations. She is most apt to be neurotic and there is a tendency toward an obsessional-schizoid personality.

Rhytidectomy Candidate: She is most likely to be a 48 year old white, married, Protestant woman of upper middle income status, gainfully employed or engaged in civic and cultural activities. She is eager to continue her active participation in life. The most common psychiatric diagnosis is neurotic depressive.

Augmentation Mammoplasty Candidate: She is a white, married, Protestant housewife, age between 27 and 33 years, who tends to be in the middle socio-economic class. She is likely to be involved in a strained marital situation and is apt to have a history of depression.

Age of onset and duration of a deformity have been emphasized in reference to reconstructive procedures since these are variables in the psychic reactions. Parental handling is extremely important in congenital and early acquired defects where psychiatric intervention both prophylactically and when emotional problems develop may be invaluable.

Psychic reactions to a defect occurring later in life are directly related to the patient's previous character pattern. The persons who request repair of this type of deformity fall into three categories: (a) normal persons whose deformity has caused secondary psychological problems which are likely to improve with good results of the surgical

procedure; (b) people with abnormal personalities who then become deformed have reactions which vary widely; therefore, psychiatric assessment is always desirable; (c) psychotic persons whose reactions center upon an existent deformity. A combined psychiatric-surgical approach is mandatory. Individual delusions may be relieved but the psychotic illness remains.

There is a consensus of opinion that the male patient who seeks cosmetic surgical procedures is likely to be seriously mentally ill. The "typical" male candidate could perhaps best be described as schizoid. Even with good subjective post-operative results, it is the psychiatrist's opinion that no marked change is seen in the patient's personality limitations. Psychiatric consultation is always indicated for the man who seeks cosmetic alteration.

Since 1937, plastic surgical procedures have been undertaken in state and federal penal institutions. The hypotheses that physical deformity is related to crime and that improvement in self image is related to successful rehabilitation were confirmed. By 1966, twenty two states were using plastic surgeons as a part of their rehabilitation team. Many more states are considering this program now.

## CONCLUSIONS

1. Perhaps there is no other branch of medicine where the patient's mental attitude is as important as it is in plastic surgery.
2. The prime goal of any plastic procedure is the positive change in the body image, either real or imagined, that it instigates.
3. There is a definite need for the plastic surgeon to be trained in the assessment of the basic psychological aspects of his patients, as it is his responsibility to sort out those patients with primary psychiatric problems and direct them toward psychiatric attention.
4. A psychiatric diagnosis of psychotic or neurotic reaction pattern is reason to pause before deciding on a surgical procedure without surgical-psychiatric team management of the patient.
5. There is an obvious psychodynamic difference between the patient who seeks surgical help for a serious, particularly a traumatic, deformity and the patient who seeks it on account of a deviation from the norm.
6. Psychiatric help for the parents of a deformed child may make the difference between normal psychological development and a thwarted personality.
7. Psychological problems are likely to be present in patients with obvious traumatic deformities and are often overlooked by the surgeon who is more concerned with the anatomical correction.
8. The men who seek cosmetic alterations are likely to be seriously mentally ill. In all cases where the need for the operation is not obvious, the request is vague, and the optimism for good

results is exaggerated, they should be referred for psychiatric evaluation as part of their pre-operative work-up.

9. Physical deformity is a causitive factor in the making of the criminal. Removal of the defect is a factor in decreasing the recidivism rate in a prison population.
10. Part of the good result from corrective operations performed on the prisoners may have been due to the care, concern, and confidence shown to them which they often do not find on the outside.
11. An interesting sequel to this survey of the literature will be the psychiatric aspects of the heart transplant patients since psychological problems are certain to arise as these procedures become more successful.



## BIBLIOGRAPHY

1. Abeles, M. M.: "Postoperative Psychosis", Amer. J. Psychiat., 94: 1187, 1938.
2. Anderson, J. R.: "Rhinoplasty: Prevention of Unsatisfactory Results", Eye Ear Nose Throat Monthly, 41:529-531, 1962.
3. Aufrecht, Gustave: "Philosophy of Cosmetic Surgery", Plast. Reconstr. Surg., 20:397, 1957.
4. Baker, W. Y., and Smith, L. H.: "Facial Disfigurement and Personality", J. A. M. A., 112:301, 1939.
5. Barker, R. G., Wright, B. A., Meyerson, L., and Gonick, M. R.: Adjustment to Physical Handicaps and Illness: A Survey of the Physique and Disability. Social Science Research Council New York, 1953.
6. Barsky, A.: "Psychology of the Patient Undergoing Plastic Surgery", Amer. J. Surg., 65:238, 1944.
7. Berg, R. H.: "A New Nose Means a New Personality", Look Magazine, August 2, 1960.
8. Best, A. A., and Hellman, L. I.: "Psychological and Emotional Effect of Cosmetic Surgery", Western Med., 1:8-9 passim, 1960.
9. Bettman, A. G.: "Plastic and Cosmetic Surgery of the Face", Northwest Med., 19:205-209, 1920.
10. Bettman, A. G.: "Psychology of Appearances", Northwest Med., 28: 182-185, 1929.
11. Blair, V. P.: "Plastic Surgery of the Head, Face, and Neck: The Psychic Reactions", J. Amer. Dent. Ass., 23:236, 1939.
12. Blair, V. P.: "Surgery, Speciality Surgery and 'Plastic' Surgery", Surg. Gynec. Obstet., 62:895, 1936.
13. Booth, F. A.: "Cosmetic Surgery of the Face, Neck, and Breast", Northwest Med., 21:170, 1922.
14. Brown, G.: "Post-operative Psychosis", Amer. J. Surg. (Anesthesia Supp.), 40:48-51, 1926.
15. Bryt, A.: "Psychiatric Considerations in Candidates for Plastic Surgery", Eye Ear Nose Throat Monthly, 45:86-88, 1966.
16. Bryt, A.: "Psychiatric Considerations in Candidates for Plastic Surgery", Eye Ear Nose Throat Monthly, 45:102-105, 1966.

17. Buhler, C.: "Maturation and Motivation", Personality, 1:184, 1951.
18. Clarkson, P.: "Appearance, Cosmetic Surgery and Mental Health", London Clin. Med. J., 6:37-49, 1965.
19. Clarkson, P.: "Mental Health and Cosmetic Surgery", Int. Surg., 45:611, 1966.
20. Clarkson, P., and Stafford-Clark, D.: "Role of the Plastic Surgeon and Psychiatrist in the Surgery of Appearance", Brit. Med. J., 5215:1768-1771, 1960.
21. Cobb, S., and McDermott, N. T.: "Postoperative Psychosis", Med. Clin. North America, 22:529, 1938.
22. Cokkina, A. J.: "A Note on Post-operative Insanity", Lancet, 1:488-489, 1934.
23. Davis, J. S.: Plastic Surgery. P. Blakiston's Son and Co., Philadelphia, 1919.
24. DeBeauvoir, S.: The Second Sex. Knopf, New York, 1953.
25. Deutsch, H.: "Some Psychoanalytic Observations in Surgery", Psychosom. Med., 4:105, 1942.
26. Doyle, J. B.: "Post-operative Psychosis", Proc. Staff Met. Mayo Clin., 3:198-199, 1928.
27. Edgerton, M. T., and McClary, A. R.: "Augmentation Mammoplasty", Plast. Reconstr. Surg., 21:279, 1958.
28. Edgerton, M. T., Jacobson, W. E., Meyer, E., and Canter, A.: "The Surgical-psychiatric Study of Patients Seeking Plastic (Cosmetic) Surgery: 98 Consecutive Patients With Minimal Deformity", Brit. J. Plast. Surg., 13:136, 1960.
29. Edgerton, M. T., Meyer, E., and Jacobson, W. E.: "Augmentation Mammoplasty II. Further Surgical and Psychiatric Evaluation", Plast. Reconstr. Surg., 27:279, 1961.
30. Edgerton, M. T., Webb, W. L., Slaughter, R., and Meyer, E.: "Surgical Results and Psychological Changes Following Rhytidectomy; An Evaluation of Face-Lifting", Plast. Reconstr. Surg., 33:503-521, 1964.
31. Engel, G. L.: Psychological Development in Health and Disease. Saunders Co., Philadelphia and London, 1963. p. 25.
32. Erickson, E. H.: "The Problem of Ego Identity", J. Am. Psychoanal. A., 4:56, 1956.

33. Fisher, S.: "Extensions of Theory Concerning Body Image and Body Reactivity", Psychosom. Med., 21:142, 1959.
34. Frenkel-Brunswick, E.: "Intolerance of Ambiguity as an Emotional and Perceptual Personality Variable", J. Personality, 18:108, 1949.  
Frenkel-Brunswick, E.: "Studies in Biographical Psychology, Character and Personality", J. Personality, 5:1, 1936.
36. Gardner, W. E.: "Post-operative Psychosis", Kentucky Med. J., 26:537-546, 1928.
37. Harman, D.: "Aging", from a Lecture Series. University of Nebraska College of Medicine, Omaha, Nebraska, 1967.
38. Hill, G., and Silver, A. G.: "Psychodynamic and Esthetic Motivations for Plastic Surgery", Psychosom. Med., 12:345, 1950.
39. Hollander, M. M.: "The Psychological Commitants of Plastic Surgery", Brit. J. Plast. Surg., 14:258-264, 1961.
40. Jacobson, W. E., Edgerton, M. T., Meyer, E., Canter, A., and Slaughter, R.: "Psychiatric Evaluation of Male Patients Seeking Cosmetic Surgery", Plast. Reconstr. Surg., 26:356, 1960.
41. Jacobson, W. E., Meyer, E., and Edgerton, M. T.: "Psychiatric Contributions to the Clinical Management of Plastic Surgery Patients", Postgrad. Med., 29:513-521, 1961.
42. Jacobson, W. E., Meyer, E., Edgerton, M. T., Cantor, A., and Slaughter, R.: "Screening of Rhinoplasty Candidates From the Psychiatric Point of View", Plast. Reconstr. Surg., 28:279-281, 1961.
43. Jessner, L.: "Emotional Implications of Tonsillectomy and Adenoidectomy on Children", in The Psychoanalytic Study of the Child, Vol. 7, p. 126, New York, International Universities Press, Inc., 1952.
44. Johnson, J. B.: "The Problem of the Aging Face", Plast. Reconstr. Surg., 15:117, 1955.
45. Kreshy, B., and Simon, B. E.: "Infantile Reaction to Facial Disfigurement", Arch. Surg., 82:783, 1961.
46. Kuhlen, R. G.: "Aging and Life Adjustment", in A Handbook of Aging and the Individual, Ed. by Birren, J. E. Univ. Chicago Press, Chicago, 1959, pp. 852-897.

47. Kurtzberg, R. L., Lewin, M. L., Cavior, N., and Lipton, D. S.: "Psychologic Screening of Inmates Requesting Cosmetic Operations: A Preliminary Report", Plast. Reconstr. Surg., 39:387-396, 1967.
48. Levy, D. M.: "Psychic Trauma of Operations in Children", Amer. J. Dis. Child., 69:7, 1945.
49. Lewison, E.: "An Experiment in Facial Reconstructive Surgery in a Prison Population", Canad. Med. Ass. J., 92:251-254, 1965.
50. Linn, L., and Goldman, I. B.: "Psychiatric Observations Concerning Rhinoplasty", Psychosom. Med., 11, 307, 1949.
51. MacGregor, F. C.: "Some Problems Associated With Facial Deformities", Amer. Socio. Rev., 16:629-638, 1951.
52. MacGregor, F. C., Abel, T. M., Bryt, A., Lauer, E., and Weisemann, S.: Facial Deformities and Plastic Surgery: A Psychological Study. Thomas, Springfield, Illinois, 1953.
53. MacGregor, F. C., and Schaffner, B.: "Screening Patients for Nasal Plastic Operations", Psychosom. Med., 12:277, 1950.
54. MacKenzie, C. M.: "Facial Deformity and Change in Personality Following Corrective Surgery", Northwest Med., 43:230-231, 1944.
55. Masters, F. W., and Robinson, D.: "Cosmetic Surgery. Correcting Emotional, Rather Than Functional, Defects", J. Kans. Med. Soc., 67:128-133, 1966.
56. McCarthy, D. J.: "Post-operative Insanities", Pennsylvania Med. J., 26:153-159, 1922.
57. McGraw, R. B.: "Post-operative Emotional Disorders --- Their Prevention and Treatment", Bull. N. Y. Acad. Med., 6:179-188, 1930.
58. Meerlo, J. A.: "The Fate of One's Face", Psychiat. Quart., 30:31, 1956.
59. Meerlo, J. A.: "The Man Without a Face", Amer. Practit., 12:51A-52A, 1961.
60. Menninger, K. A.: "Polysurgery and Polysurgical Addiction", Psychoanal. Quart., 3:173, 1934.
61. Meyer, E., and Edgerton, M. T.: "Psychology of Patients Seeking Plastic Surgery", Bull. Johns.Hopkins Hosp., 100:234, 1957. (Abstract)

62. Meyer, E., Jacobson, W. E., Edgerton, M. T., and Canter, A.: "Motivational Patterns in Patients Seeking Elective Plastic Surgery. I. Women Who Seek Rhinoplasty", Psychosom. Med., 22:193-203, 1960.
63. Miller, C. C.: Cosmetic Surgery. 2nd Edit. 1908.
64. Muncie, W.: "Post-operative States of Excitment", Arch. Neur. Psychiat., 32:681-703, 1934.
65. Mussen, P. H., and Jones, M. C.: "Behavior Interferred Motivation of Early and Late Maturing Boys", Child Development, 29:61, 1958.
66. Mussen, P. H., and Jones, M. C.: "Self Concept Motivation and Interpersonal Attitudes of Late and Early Maturing Boys", Child Development, 28:243, 1957.
67. Newman, Z.: "Plastic or Somatopsychic Surgery", Postgrad. Med., 33:336-340, 1963.
68. Noyes, A. P., and Kolb, L. C.: Modern Clinical Psychiatry. 6th Ed. Saunders Co., Philadelphia and London, 1963.
69. Palmer, A., and Blanton, S.: "Mental Factors in Relation to Reconstructive Surgery of the Nose and Ears", A. M. A. Arch. Otolaryng., 56:148, 1952.
70. Pick, J. F.: "Ten Years of Plastic Surgery in a Penal Institution", J. Internat. Coll. Surgeons, 11:315-319, 1948.
71. Rose, John A.: "Mother Breakdown and Infant Physical Abnormalities," in Prevention of Mental Disorders in Children. Gerald Kaplan, Edit., New York: Basic Books, 1961.
72. Rosen, V. A.: "The Role of Denial in Acute Post-operative Affective Reactions Following Removal of Body Parts", Psychosom. Med., 12:256, 1950.
- 73.. Saul, L. J.: "The Feminine Significance of the Nose", Psychoanal. Quart., 17:51, 1948.
74. Seltzer, A. P.: "Esthetic Surgery as an Emotional Restorative", Am. Prat. Digest. Treat., 5:191, 1954.
75. Spira, M., et. al.: "Plastic Surgery in the Texas Prison System", Brit. J. Plast. Surg., 19:364-371, 1966.
76. Spitz, R.: No and Yes. New York, Internat. Univ. Press, 1957.
77. Stern, K., Fournier, G., and LaRiviere, A.; "Psychiatric Aspects of Cosmetic Surgery of the Nose", Canad. Med. Ass. J., 76: 469, 1957.

78. Tagliacozzi, Gaspare: Quoted by Maltz, Maxwell: Evolution of Plastic Surgery. New York, Froben Press, 1946. p. 161.
79. Taylor, B. W., Litin, E. M., and Litzow, T. J.: "Psychiatric Considerations in Cosmetic Surgery", Mayo Clin. Proc., 41:608-623, 1966.
80. Titchener, J. L. and Levine, M.; Surgery as a Human Experience. New York, Oxford University Press, 1960.
81. Updegraff, H. S. and Menninger, K. A.: "Some Psychoanalytic Aspects of Plastic Surgery", Amer. J. Surg., 25:554, 1934.
82. Van Duyn, J.: "Psyche and Plastic Surgery", Southern Med. J., 58:1255-1266, 1965.
83. Washburn, A. C. and Carns, M. L.: "Post-operative Psychosis, Suggestions for Prevention and Treatment", J. Nerv. Ment. Dis., 82:508, 1935.
84. Webb, W. L. Jr., Slaughter, R., Meyer, E., and Edgerton, M. T.: "Mechanisms of Psychosocial Adjustment in Patients Seeking "Face-lift" Operation", Psychosom. Med., 27:183-192, 1965.